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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/462,441	03/20/2000	HANS-JOSEF GIERTZ	PS-12626	5095

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EXAMINER

WACHTEL, ALEXIS A

ART UNIT	PAPER NUMBER
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1764

DATE MAILED: 05/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/462,441

Applicant(s)

GIERTZ ET AL.

Examiner

Alexis Wachtel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 March 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 16, 18-24, 27, 29, 30, 33-46, 48, 50-52, 54-65, 67 and 71-73 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16, 18-23, 27, 29, 30, 33-45, 65, 67 and 71-73 is/are allowed.
- 6) ☒ Claim(s) 24, 46, 48, 50-52 and 54-64 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

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Detailed Action

Response to Amendment

1. Applicant's amendment and accompanying Remarks filed 3-18-2004 have been entered and carefully considered.

The amendment is sufficient to overcome the obviousness rejections of claims 16, 18-24, 27, 30, 33-45, 52, 65, 67, 71, 72. Claims 1-15, 17, 25, 26, 28, 31, 32, 47, 49, 53, 66, 68-70 are cancelled without prejudice. Claim 73 was added for consideration.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 24, 46, 48, 50-52 and 54-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4,264,263 to Richmond Jr. in view of US 3,859,066 to Trutzschler.

With respects to the limitations of claim 24 and 52: A device to at least partially seal a leveler door opening (12) of a coke oven chamber during top charging of the coking coal comprising a housing (20) having a first end opening connectable to the leveler door opening so as to form a seal, a leveler bar (16) guided into a second end opening and at least partially through an interior passageway of said housing and at least partially through said leveler door opening, said leveler bar (16) including at least two side segments (50, 52) and at least two cross segments (54) connecting said two

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side segments, said housing (20) provided with a sealing mechanism (Fig.4) to at least partially inhibit a flow of gases in front of said leveler door opening by creating a no-flow zone in a region in at least closely adjacent to the front of said leveler door opening, said sealing mechanism including at least one movable sealing element to at least partially seal an inner cross section of said leveler bar (16) between said side segments, said at least one movable sealing element includes at least one pivoting seal having a pivotable panel wherein the pivotable panel is movable between at least two of said cross segments of said leveler bar.

Richmond Jr. as set forth above fails to teach the use of a cell wheel having a plurality of panels rotatable about an axis wherein at least one of said panels is movable between at least two of said cross segments of said leveler bar as a sealing mechanism. Trutzschler teaches the use of a cell wheel (19) that functions as an airlock (Col 2, lines 60-65). One of ordinary skill would have observed that sealing mechanisms and include cell wheels and would have realized that a cell wheel is functionally equivalent to the sealing means disclosed by Richmond Jr. As a result, having employed a cell wheel as a sealing mechanism in addition to the sealing mechanisms disclosed by Richmond Jr. in the claimed manner would have been obvious to one of ordinary skill at the time the invention was made.

With respects to claim 46, Richmond Jr. discloses an apparatus comprising: A device to at least partially seal a leveler door opening (12) of a coke oven chamber during top charging of the coking coal, comprising a housing (20) having a first end opening at least partially connectable to the leveler door opening, a leveler bar (16) at

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least partially moveable into a second end opening of said housing (20) and at least partially through an interior passageway of said housing (20) and guidable at least partially through said leveler door opening (12), said leveler bar (16) including at least two side segments (50,52) and at least one cross segment connecting said two side segments (50,52), said housing (20) provided with a sealing mechanism (Fig.4) to inhibit a flow of gases in front of said leveler door opening by creating a no flow zone in a region in at least closely adjacent to the front of said leveler door opening, said sealing mechanism including at least one movable sealing element to at least partially seal an inner cross section of said leveler bar (16) between said side segments, said at least one movable sealing element includes at least one pivoting seal, at least one cell wheel, at least one movable roller (Fig.4) and combinations thereof.

Richmond Jr. as set forth above fails to teach the use of a cell wheel as a sealing mechanism. Trutzschler teaches the use of a cell wheel (19) that functions as an airlock (Col 2, lines 60-65). One of ordinary skill would have observed that sealing mechanisms and include cell wheels and would have realized that a cell wheel is functionally equivalent to the sealing means disclosed by Richmond Jr. As a result, having employed a cell wheel as a sealing mechanism in addition to the sealing mechanisms disclosed by Richmond Jr. would have been obvious to one of ordinary skill at the time the invention was made.

With respects to the limitation of claim 48 Richmond Jr. teaches that the apparatus includes a plurality of sealing elements (Fig.4).

With respects to the limitation of claim 50 wherein said at least one rotary lock (Fig.4) is hingably connected to said housing.

With respects to the limitation of claim 51 wherein said at least one rotary lock (Fig.4) is hingably connected to said housing.

With respects to the limitation of claim 54 wherein said leveler bar includes at least two of said cross segments (54) and said housing having two sealing plates: (Fig.4); (108) secured to said housing (20) and extending outwardly from said second end opening of said housing, said sealing plates at least partially sealing gas between at least two of said cross segments (54) of said leveler bar that are spaced outwardly from said second end opening, said two sealing plates positioned substantially parallel to one another and oriented above and below said two cross segments (54) when said leveler bar passes between said two sealing plates.

With respects to the limitation of claim 55 wherein a seal mechanism (Fig.4) is included to at least partially form a leveler seal between and outer surface of said leveler bar and an interior surface of said housing (20), said leveler seal including sealing strips, sealing plates and combinations thereof.

With respects to the limitation of claim 56 wherein a seal mechanism is included to at least partially form a leveler seal between and outer surface of said leveler bar and an interior surface of said housing, said leveler seal including sealing strips, sealing plates and combinations thereof (Fig.4).

With respects to the limitation of claim 57 wherein said leveler seal is provided with press-on means (Fig.4).

With respects to the limitation of claim 58 wherein said leveler seal is provided with press-on means (Fig.4).

With respects to the limitation of claim 59 wherein said sealing plates are at least partially held in said housing by a partial vacuum at least partially causing said sealing plates to press against said leveler bar. (Examiner takes the position that since the sealing plates function as air locks, at least some vacuum is present in the sealing plates vicinity during their operation. Such a vacuum would inherently affect the operation of the sealing plates).

With respects to the limitation of claim 60 wherein said sealing plates are at least partially held in said housing (20) by a partial vacuum at least partially causing said sealing plates to press against said leveler bar. (Examiner takes the position that since the sealing plates function as air locks, at least some vacuum is present in the sealing plates vicinity during their operation. Such a vacuum would inherently affect the operation of the sealing plates).

With respects to the limitation of claim 61 wherein said sealing plates are at least partially beveled (Richmond Jr., Fig.4, item 122).

With respects to the limitation of claim 62 wherein said sealing plates are at least partially beveled (Richmond Jr., Fig.4, item 122).

With respects to the limitation of claim 63 the prior art as set forth above fails to teach that a plurality of said sealing plates and a plurality of sealing strips are arranged one behind the other in an axial direction, said axial direction defining a thrust direction for said leveler bar. However, since the sealing plates and sealing strips (taken by

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examiner to be the same) operate as airlocks to prevent emissions of harmful gases during a coke pushing session, it would have been obvious for one of ordinary skill to have duplicated the airlock effect of the sealing plates/sealing strips by using additional sealing plates/sealing strips oriented one after another in an axial direction, said axial direction defining a thrust direction of the leveler bar. *St.Regis Paper Co. v. Bemis Co., Inc.*, 193 USPQ 8,11 (7th Cir. 1977).

With respects to the limitation of claim 64, the prior art as set forth above fails to teach a plurality of said sealing plates and a plurality of sealing strips are arranged one behind the other in an axial direction, said axial direction defining a thrust direction for said leveler bar. However, since the sealing plates and sealing strips (taken by examiner to be the same) operate as airlocks to prevent emissions of harmful gases during a coke pushing session, it would have been obvious for one of ordinary skill to have duplicated the airlock effect of the sealing plates/sealing strips by using additional sealing plates/sealing strips oriented one after another in an axial direction, said axial direction defining a thrust direction of the leveler bar. *St.Regis Paper Co. v. Bemis Co., Inc.*, 193 USPQ 8,11 (7th Cir. 1977).

Response to Arguments

4. In response to applicant's argument that Trutzschler is nonanalogous art, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In this

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case, Trutzschler is clearly pertinent to a problem the Applicant was concerned with: that of providing sealing means, of which airlock means are a sub-group. As a result, Trutzschler is clearly analogous art.

Examiner Comments

5. Although DE 23 64 458 and DE 33 40 087 are briefly described in the specification as well as in a recently provided abstract, such brief descriptions do not allow the Examiner to fully consider the prior art as a whole. Additionally, no translation is provided for FR 886,880. Accordingly, the stated references will not be considered on form 1449. The Examiner appreciates efforts on Applicant's part of facilitating prosecution by providing fully translated prior art references.

Prior Art of Record

6. The prior art of record and not relied upon is considered pertinent to Applicant's disclosure. In addition, the following references are cited for disclosing various aspects of Applicant's invention: US 3,647,053; US 4,231,845; US 4,234,390; US 4,283,253; US 4,359,362; US 3,647,053; US 3,968,014

Allowable Subject Matter

7. Claims 16,18-23,27,29,30,33-45,65,67 and 71-73 are allowable for the reasons set forth by the Applicant in the Amendment filed on 3-18-2004

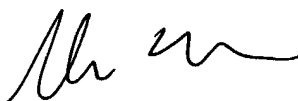
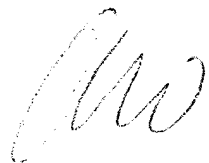
Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Wachtel whose telephone number is 571-272-1455. The examiner can normally be reached on 10:30am to 6:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Glenn Caldarola, can be reached at (571)-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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